

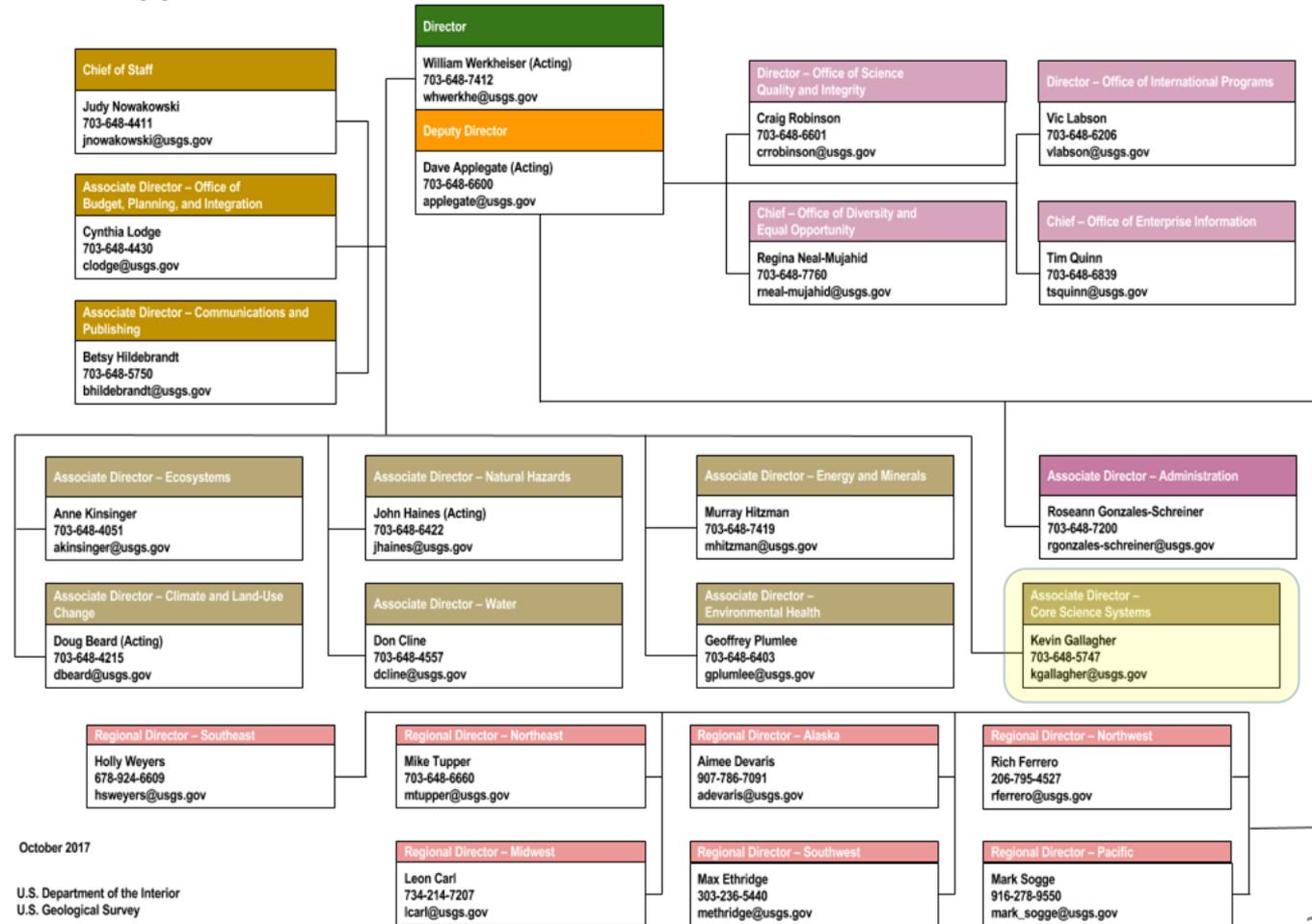
Advancing
Geographic Place-Based Understanding
for **Decision-Making**

US National Spatial Data Infrastructure
Vietnam Delegation Briefing

Ivan DeLoatch
Executive Director
Federal Geographic Data Committee



USGS, CSS, FGDC Org
Chart and Intro



October 2017

U.S. Department of the Interior
U.S. Geological Survey

Core Science Systems

**Associate Director -
Core Science Systems**

Kevin Gallagher
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John Wesley Powell Center

**Federal Geographic Data
Committee (FGDC)**

Ivan Deloatch,
FGDC Executive Director

National Geospatial Program

Mike Tischler

**National Geospatial Technical
Operations Center (NGTOC)**

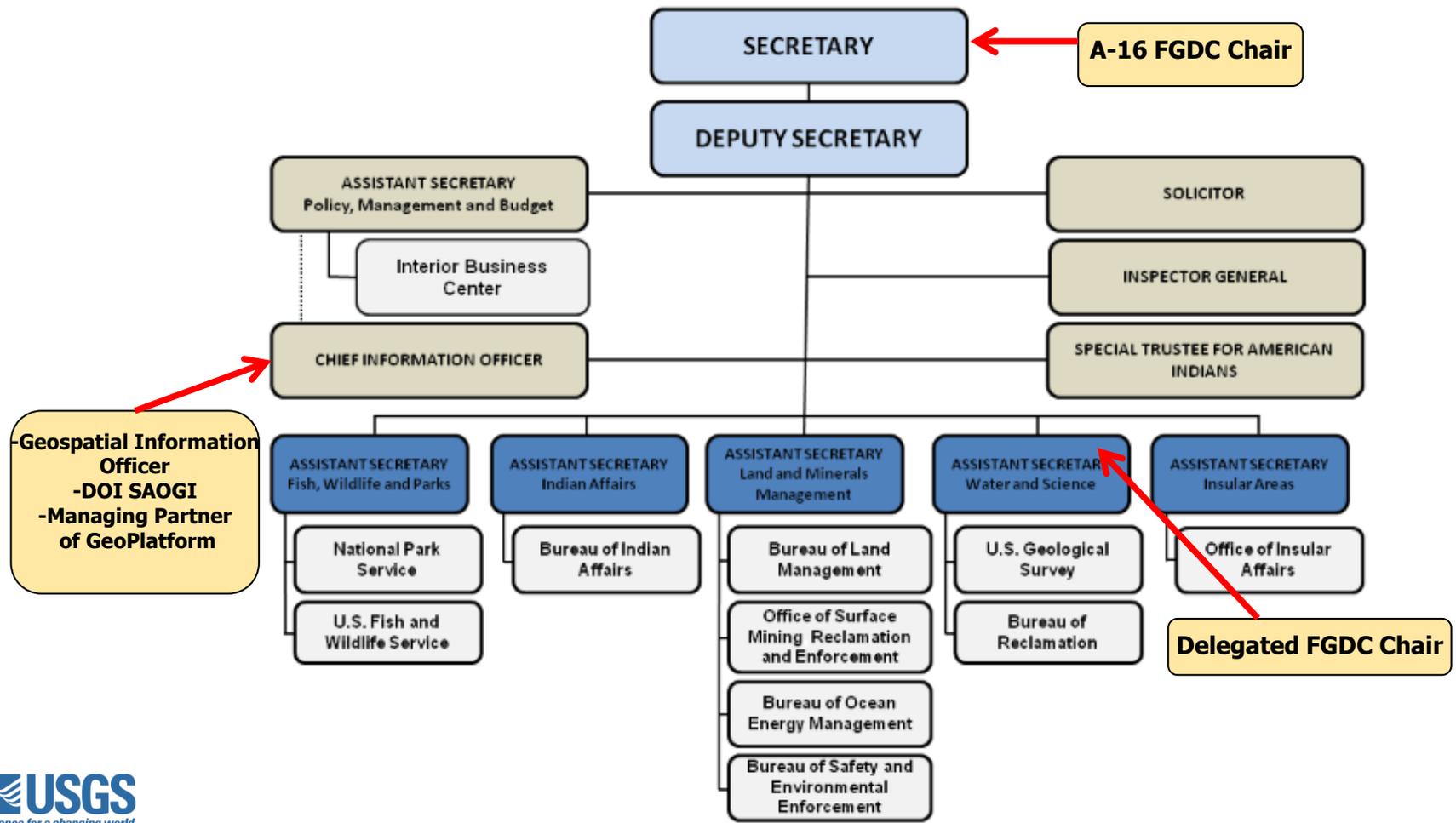
**National Cooperative Geologic
Mapping Program (NCGMP)**

**National Geological &
Geophysical Data Preservation
Program & National Laboratories**

**National Ice Core Laboratory
(NICL)**

**Core Science Analytics and
Libraries**

Core Research Center (CRC)





National Spatial Data Infrastructure

Our Journey Advancing Geographic Place-Based Understanding for the Nation



The United States Federal Geographic Data Committee (FGDC) was Established to Coordinate the Nations Geographic Information and Federal Spatial Data Activities



Partnerships

Policies

Standards

Procedures

Data

Technology

NSDI Framework for Linking
Geographic Information

National Spatial Data Infrastructure

The NSDI Provides a framework of polices, standards, procedures, data and technology to support the effective coordination and sharing of spatial information among a community of stakeholders.

NSDI Partnerships & Collaboration

Federal

State & Local

Tribal

Private & Professional

Academia

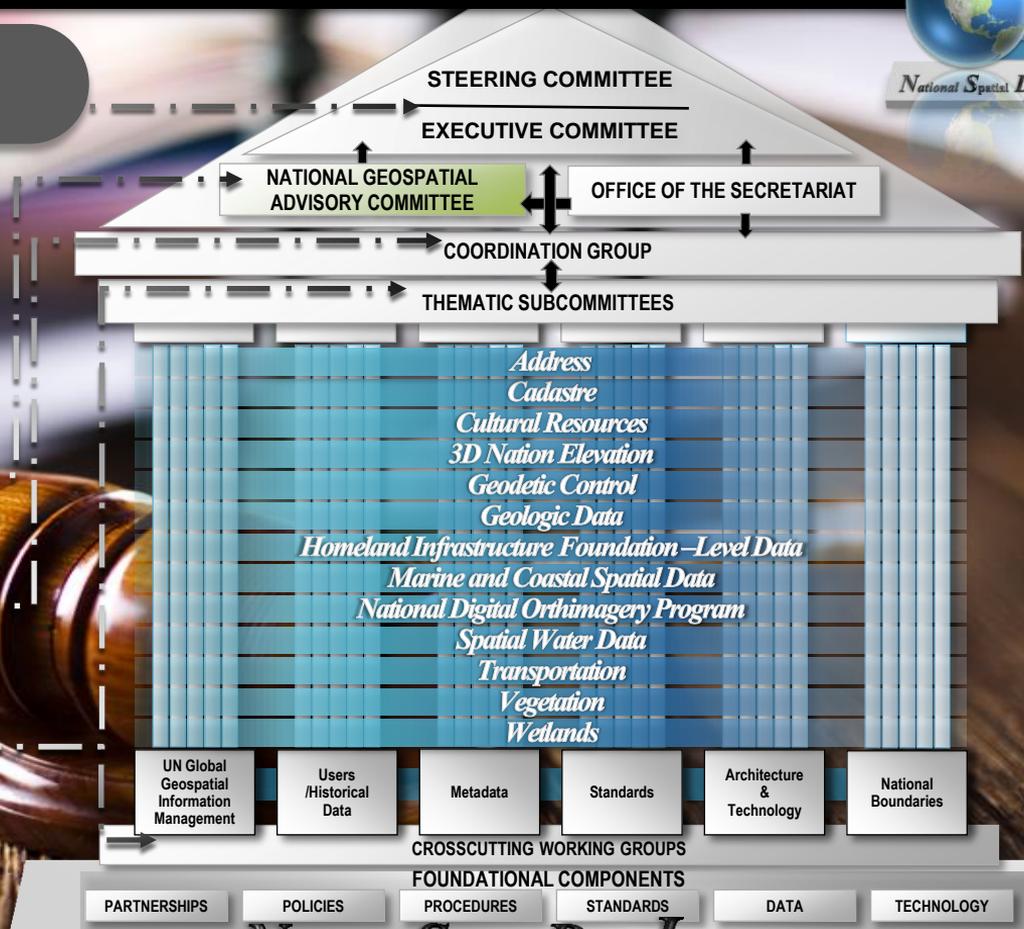
International

NATIONAL
SPATIAL
DATA
INFRASTRUCTURE



Partnerships and Governance

- Strategic Direction
- Non-Federal Advisory
- Federal Advisory
- Address Specific Geospatial Issues



Policy and Procedures

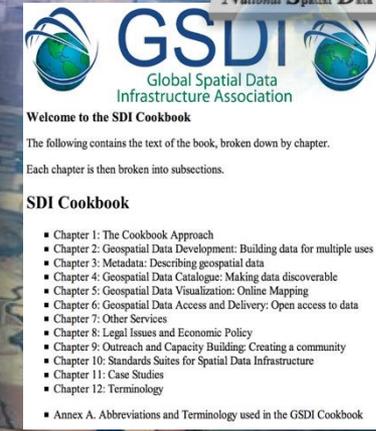
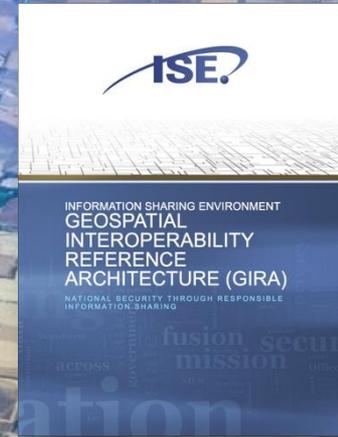
Public Laws

Executive Memos

Circulars

Reference Guides

OPEN
GOVERNMENT
DIRECTIVE



Process for maintaining Executive Theme Champions, Theme Leads, and Dataset Managers	NGDA datasets inventory and register metadata on the GeoPlatform.gov/Data.gov catalog	Process for nomination/removal of NGDA Datasets within the A-16 NGDA Portfolio	Geospatial investments definitions document
NGDA Collaboration Community on Geoplatform.gov	NGDA Theme public websites on GeoPlatform.gov	Complete NGDA Dataset Lifecycle Maturity Assessment (LMA)	NGDA Strategic Theme Plan Template
Coordinate across NGDA Themes	Dataset Report 2016 (Jan)	Initial Theme Summary Report (Jan 2016)	Dashboard (Jan 2016)

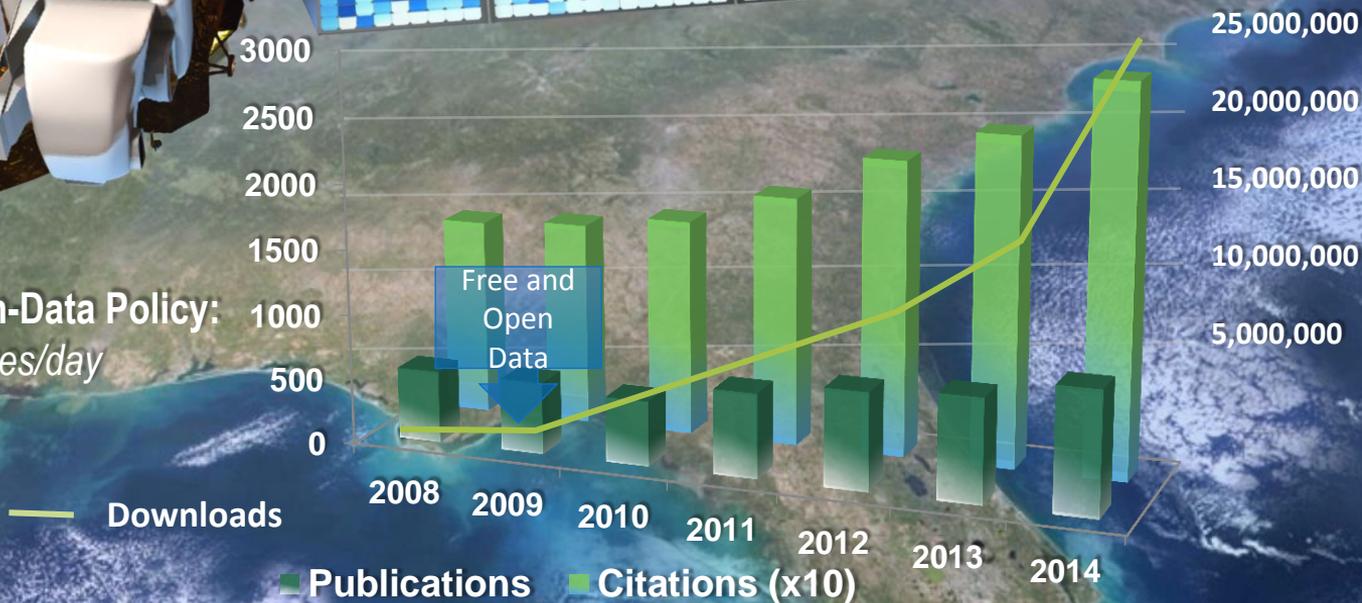
Open Data Impact on Landsat Services

Annual Economic Benefit

USA \$1.70 B
International \$400 M
Global Total \$2.1 B

After Open-Data Policy:
5,700 scenes/day

Before Open Government:
53 scenes/day



Standards and Interoperability

Standards facilitate development, sharing, and use of geospatial data and services



Data Framework

NSDI Framework Data Themes

- Cultural**
Information that is of value to the Nation's cultural heritage.
- Resource**
The natural and cultural resources of the Nation.
- Health and Safety**
Information that is essential to the Nation's health and safety.
- Government Data**
Information that is essential to the Nation's government.
- Hydrography**
Information that is essential to the Nation's water resources.
- Geography**
Information that is essential to the Nation's geography.
- Topography**
Information that is essential to the Nation's topography.

FGDC.GOV
www.fgdc.gov

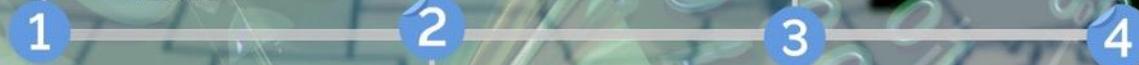


Portfolio Management

NGDA Thematic Datasets



Tools For Reporting & Monitoring



1 Core Data Themes

2

3

4

OPEN GOVERNMENT DIRECTIVE



National Thematic Datasets



Framework Data

Cadastral

Information about land ownership

Elevation

The height of the land and depth of water bodies.

Geodetic Control

The precise location of features in relation to other features using a common reference system for coordinate positions.

Government Units

The boundaries and names of government service and management areas at all levels of government.

Hydrography

The path of roadways and rail lines, and the location of supporting features such as train stations and bus stops. However, in the context of Framework, we generally just refer to Road Centerline data.

Orthoimagery

Aerial and satellite imagery processed by removing inherent distortions to make them accurate like a map.

Transportation

The path of roadways and rail lines, and the location of supporting features such as train stations and bus stops. However, in the context of Framework, we generally just refer to Road Centerline data.



National Geospatial Data Assets Data Themes

Biodiversity & Ecosystems

Cadastre

Climate & Weather

Cultural Resources

Elevation

Geodetic Control

Geology

Government Units

Imagery

Land Use & Land Cover

Real Property

Soils

Transportation

Utilities

Water-Inland

Water – Oceans & Coasts

NSDI Technology Services

GeoPlatform



DATA

Authoritative trusted, consistent data and services

Datasets

Browse GeoPlatform's open data assets to find data of interest. View data.

FEATURES



Imagery

Browse GeoPlatform's open data assets to find data of interest. Build a custom map. Upload your own data to the map. Share the map with others.

FEATURES



TOOLS

Visual & analytical tools and applications

Map Manager

Search and browse through maps hosted from ArcGIS Online and GeoPlatform. View themes. Select maps to create a new track or Map Gallery. View and edit your Map Gallery or share it with a friend.

Map Viewer

Browse GeoPlatform's open data assets to find data of interest. Build a custom map. Upload your own data to the map. Share the map with others.

FEATURES



SERVICES

Web-based Geospatial Services

Marketplace

The Marketplace allows users to browse and apply services for geospatial data and information services provided by third parties or contractors connected to the GeoPlatform network. The capability is designed to better centralize existing capabilities existing in various or legacy data or information sources.

Cloud Services

GeoPlatform open incorporates a shared cloud computing infrastructure for data and application hosting by the NSDI community.

GIS Monitoring

GeoPlatform open incorporates a shared cloud computing infrastructure for data and application hosting by the NSDI community.



Get Involved - Share data, maps and more

COLLABORATION

Communities

GeoPlatform open incorporates the concept of "communities"—interactive, loosely formed sections of the network that are managed and used collaboratively by specific communities of interest.

The GeoPlatform links and Connects Local-to-Global Data, Information and Knowledge



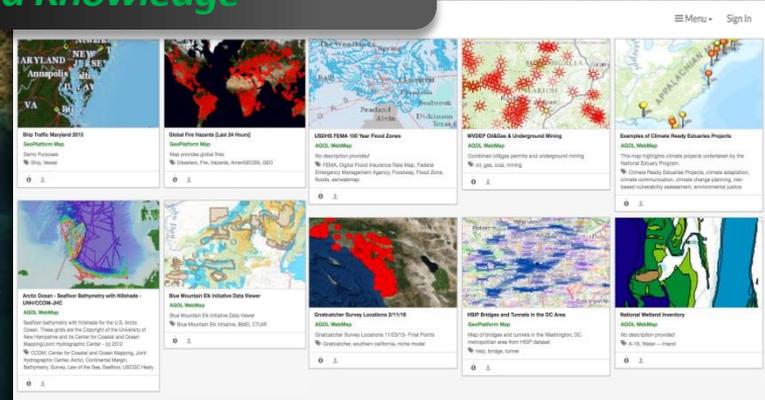
The GeoPlatform links and Connects Local-to-Global *Data, Information and Knowledge*

Welcome to the Geospatial Platform

The GeoPlatform provides shared and trusted geospatial data, services, and applications for use by the public and by government agencies and partners to meet their mission needs.

GeoPlatform users have access to

- A one-stop shop that delivers trusted, consistent data and services
- Authoritative data to support informed decision making
- Reusable applications and services for governmental and nongovernmental use
- A shared infrastructure that can host your data and applications
- A focal point where governmental, academic, private, and public data can be visualized together to inform national and regional issues



Geospatial Platform Services

GEOPLATFORM.gov

Data Services

GEOPLATFORM.gov

Applications & Tools

GEOPLATFORM.gov

Shared Services

GEOPLATFORM.gov

Communities



Geospatial Platform Services

DATA
Authoritative trusted, consistent data and services

GEOPLATFORM.gov
FGDC.GOV
FEDERAL GEOGRAPHIC DATA COMMITTEE

Welcome to GeoPlatform.gov
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SERVICES
Web-based Geospatial Services

TOOLS
Visual & analytical tools and applications

Get Involved - Share data, maps and more
COLLABORATION

330 datasets found for "Biodiversity ecosystem"

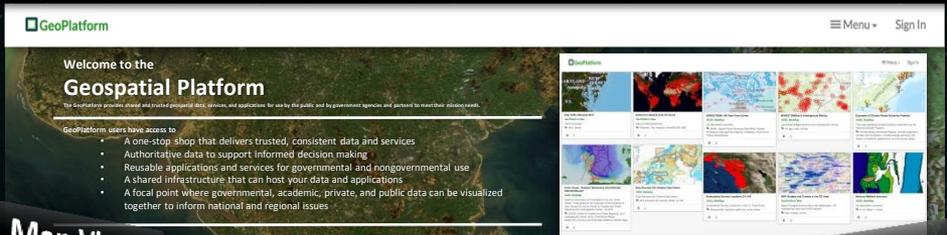
Dataset Type: **Geospatial (330)**

Spread Of Africanized Honey Bees In The United States - Direct Downward U.S. Geological Survey, Department of the Interior - This map layer portrays the spread, by Africanized honey bee (AHB) in the United States, Puerto Rico, and the U.S. Virgin Islands.

Environmental Sensitivity Index (ESI) Threatened And Endangered Species REST Services

Featured Services

- AGOL Map Harvester
- Map Collaboration
- AGOL Map Harvester
- Biota
- Cadastré
- Climate & Weather
- Cultural Resources
- Elevation
- Geodetic Control
- Geology
- Administrative & Statistical Units
- Imagery
- Transportation
- Utilities
- Inland Water
- Oceans & Coasts



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Map Manager

Interface for managing maps, showing various map thumbnails and metadata.



Map Viewer

Interface for viewing maps, showing a large map with navigation controls.



Data Acquisition

Interface for acquiring data, showing a grid of data thumbnails.



Data Acquisition

Text-based view of data acquisition information, including metadata and descriptions.



Marketplace

Interface for marketplace, showing a map of the United States with data overlays.



Service Dashboard

Dashboard showing service performance metrics, including a grade of A+ and various charts.



Community

Community page featuring a landscape image and a section for 'Your Community's Title'.



Knowledge Base

Knowledge base interface with a map and several informational cards.



Performance Dashboard

Category	Value	Target	Status
...
...
...

The GeoPlatform provides a suite of **applications and tools** for integrating, synthesizing, analyzing problem-solving and visualizing geographically enriched data to **accelerate understanding** and **decision-making**.

GeoPlatform Dataset Search

Search

Search Datasets

Enter keywords and press 'Enter'
Surround phrases with quotations ("")

Search by geography



Sort By
Popular

Organizations

National Oceanic and Atmospheric Administration, Department of Commerce	70845
NSGIC GIS Inventory (aka Ramona)	16988
Federal Emergency Management Agency, Department of Homeland Security	8109
U.S. Geological Survey, Department of the Interior	6222
Earth Data Analysis Center, University of New Mexico	5436

Find

National Hydrography Dataset (NHD) - USGS National Map Downloadable Data Collection
U.S. Geological Survey, Department of the Interior

The USGS National Hydrography Dataset (NHD) Downloadable Data Collection from The National Map (TNM) is a comprehensive set of digital spatial data that encodes information about naturally occurring and constructed bodies of surface water (lakes, ponds, and reservoirs), paths through which water flows (canals, ditches, streams, and rivers), and related entities such as point features (springs, wells, stream gages, and dams). The information encoded about these features includes classification and other characteristics, delineation,

WAF FTP Amazon Cloud Esri REST Esri REST + 3 more

FLOODPLAIN, AUSTIN COUNTY, TEXAS
Federal Emergency Management Agency, Department of Homeland Security

The Floodplain Mapping/Redelineation study deliverables depict and quantify the flood risks for the study area. The primary risk classifications used are the 1-percent-annual-chance flood event, the 0.2-percent-annual-chance flood event, and areas of minimal flood risk. The Floodplain Mapping/Redelineation flood risk boundaries are derived from the engineering information Flood Insurance Studies (FIS), previously published Flood Insurance Rate Maps (FIRMs), flood hazard analyses performed in support of the FISs and FIRMs, and new

SHP HTML

Integrated Surface Global Hourly Data
National Oceanic and Atmospheric Administration, Department of Commerce

Integrated Surface Data (ISD) is digital data set DSI-3505, archived at the National Climatic Data Center (NCDC). The ISD database is composed of worldwide surface weather observations from over 20,000 stations, collected and stored from sources such as the Automated Weather Network (AWN), the Global Telecommunications System (GTS), the Automated Surface Observing System (ASOS), and data keyed from paper forms. Most digital observations are decoded either at operational centers and forwarded to the Federal

HTML HTML HTML HTML Esri REST + 13 more

Basemaps for USA, WMS from US Bureau of Land Management
Arizona Geological Survey

Includes: UTM zones, BLM Administrative Boundaries, Urban Areas, Counties, 100K quadrangle boundaries, Major Roads, US Highways, Interstates, State boundaries. FGDC metadata available at http://www.geocommunicator.gov/GeoComm/metadatas/basemaps/BLM_MAP_BASEMAPS.htm

WMS HTML

Cell Tower FCC (point)
State of Arkansas

This dataset contains FCC registered cellular antenna structure locations.

HTML HTML

United States Tornado Touchdown Points 1950-2004 - Direct Download
U.S. Geological Survey, Department of the Interior

Use



Water Availability

Flood Planning

Climate Forecasting

Land Management

Communications

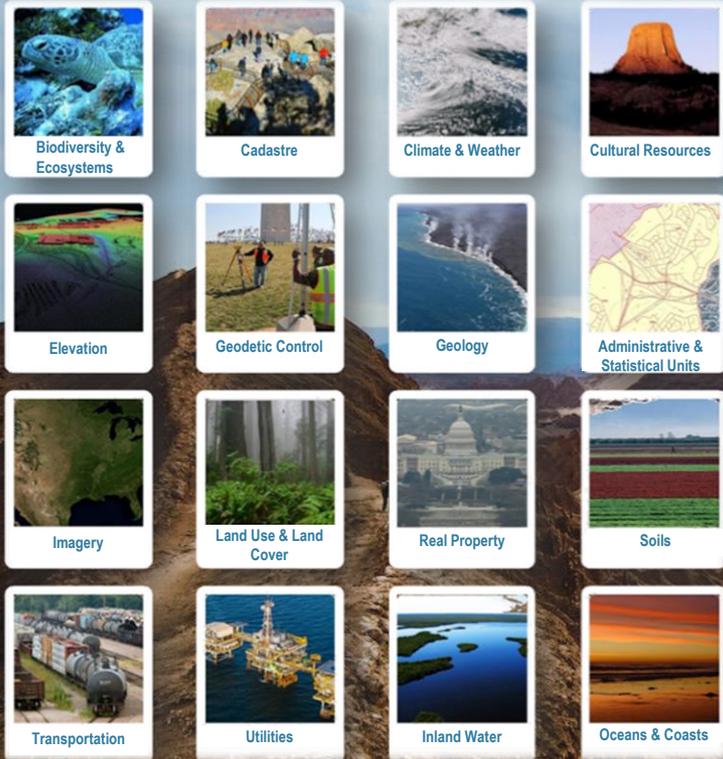
GEOPLATFORM.gov

Data Services

The GeoPlatform delivers *trusted, nationally consistent, authoritative, geographically enriched social, economic, environmental* and other *data* for understanding and decision making.



The GeoPlatform provides *shared hosting infrastructure* that allows agencies to publish their geospatial data, applications, and tools in a *secure cloud-computing* environment at a low cost.



GeoPlatform GeoCONOPS About GeoCONOPS Quick Start Guide Mission Areas Contact Us

Homeland Security Enterprise (HSE) Geospatial Concept of Operations (GeoCONOPS)

HSE GeoCONOPS
Understand how the geospatial community supports Homeland Security Missions and National Preparedness.

GOAL: Improve geospatial national preparedness by increasing the overall capacity and capability necessary, at all levels of government, to identify and utilize geospatial data, capabilities, and resources in order to conduct homeland security missions and improve national preparedness.

- Stakeholders:** Identify geospatial stakeholders, across all levels of government, supporting homeland security and PPD-3.
- GeoData & Products:** Search and discover geospatial data and products available to your mission.
- Capabilities:** Find geospatial resources and capabilities to aid in mission planning, rehearsal, and execution.
- Tradecraft:** Access training, operating procedures, templates, and other resources.
- Best Practices:** Discover methods and innovative practices for improving geospatial mission support.

Understand how the geospatial community works to unify operations that integrate and synchronize existing geospatial capabilities to support Prevent, Protect, Mitigate, Respond, and Recovery missions.

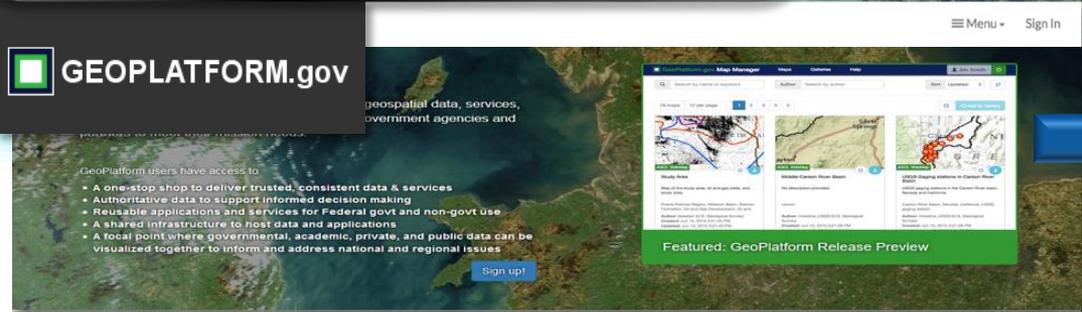
- Prevent**
- Protect**
- Mitigate**
- Respond**
- Recover**

Want to help, contribute, or get involved in the community? **Get Involved**

The GeoPlatform provides *collaborative tools and social resources* to advance the use of geospatial resources by *communities* to achieve measurable results.

International Collaboration

GEOPLATFORM.gov



geospatial data, services, government agencies and

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Featured: GeoPlatform Release Preview



Data Catalog | Tools | Products | Services | Communities

National

Local | State | Tribal | Federal | Academia | Professional

ARCTIC SDI

GeoSUR



Arctic Spatial Data Infrastructure (Arctic SDI)



GeoSUR

Regional

GLOBAL Earth Observation System of Systems (GEOS)



GEOS Portal

GROUP ON EARTH OBSERVATIONS

Global

Opportunities for Cooperation

Linked Data

Lessons Learned and
Best Practices

Architecture and
Standards

Open Data

Joint Research and
Development



UN-GGIM
UNITED NATIONS INITIATIVE ON
GLOBAL GEOSPATIAL
INFORMATION MANAGEMENT



**GROUP ON
EARTH OBSERVATIONS**



QUESTIONS?

Partnerships

Policies

Standards

Procedures

Data

Technology

Contact: FGDC@FGDC.gov

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